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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,459	03/26/2001	Moshe Gefen	246/67	6427

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DR. MARK FRIEDMAN LTD.
c/o BILL POLKINGHORN DISCOVERY DISPATCH
9003 FLORIN WAY
UPPER MARLBORO, MD 20772

EXAMINER

ENCARNACION, YAMIR

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/816,459

Applicant(s)

GEFEN ET AL.

Examiner

Yamir Encarnacion

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 1,4,6,7 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2187

DETAILED ACTION

Claim Objections

1. Claims 1, 4, 6, 7, and 9 are objected to because of the following informalities:

(A) In claims 1 and 4:

- replace "i." "ii." "iii." with --(i)-- --(ii)-- --(iii)-- .
- delete the period after then "and" of the portion of the claim starting with "ii."
- replace "An executing" with --an executing--
- replace "A non-executable" with --a non-executable--
- replace "An executable" with --an executable--

(B) In claim 6:

- replace "i." "ii." "iii." "iv." "v." with --(i)-- --(ii)-- --(iii)-- --(iv)-- --(v)-- .

(C) In claim 7:

- replace "executable entity" with --executing entity--

(D) In claim 9:

- replace "I." "II." "III." with --(a)-- --(b)-- --(c)-- .

Appropriate correction is required.

Art Unit: 2187

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1-3, 6, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by *Homma* (USPN: 5,606,529).

Claimed	<i>Homma</i>
1. A system for enabling code execution from non executable memory, comprising:	See figure 2b.
i. An executing entity, for executing code for a host system;	See figure 2b, the host.
ii. A non-executable memory component, for storing system code and data; and.	See figure 2b, the flash memory 2.

Art Unit: 2187

iii. An executable memory component, for operating as a memory buffer for executing said code, such that a portion of contents of said non-executable memory component is located within said executable memory component, and said portion of contents of said non-executable memory component emulates executable functions of said executable memory component.	See figure 2b, the cache memory 3.
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As to claim 2, the reference meets the limitation of the claim. See column 3, lines 13-15. Also, see the step labeled "transfer data in flash memory into cache" in figure 1b.

As to claim 3, column 2, line 67 thru column 2, line 1 states that the memory 2 "may be any memory so long as it is an EEPROM).

As to claim 6, see the comments for claims 1 and 2 above.

As to claim 8, the step labeled "read/write request" in figure 1b meets the limitation of "querying said executable memory for data." Also, see the step labeled "transfer data in flash memory into cache" in figure 1b meets the limitation of "when queried address of said data is only available in non-executable memory, initiating a download operation from a required location of said non-executable memory, to a buffer area of said executable memory."

Art Unit: 2187

4. Claims 1-3 and 6-7 are rejected under 35 U.S.C. 102(e) as being anticipated by *Devanagundy* (USPN: 6,148,384).

Claimed	<i>Devanagundy</i>
6. A method for executing code using non-executable memory, comprising the steps of: i. providing executable memory, for buffering at least one code request from an executing entity;	See figure 3, the registers SEEDAT1 and SEEDAT0.
ii. providing a non-executable memory, for storing executable code;	See figure 1, the SEEPROM 144.
iii. downloading at least a portion of said executable code to said executable memory, for emulating executable functions of said executable memory;	See column 6, lines 60-63 stating: “Controller 340 then automatically executes the read indicated by the opcode in register SEECTL and transfers bits from memory 144 to registers SEEDAT0 (low byte) and/or SEEDAT1(high byte).”

Art Unit: 2187

iv. executing at least one said code request from said executable memory; and v. buffering an execution of contents of said non-executable memory in said executable memory.	The reference meets the limitations of the claim.
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As to claim 7 and the limitation of the “supplying a busy signal in cases where said contents are not available, such that the executable entity delays the read cycle until said contents are available,” column 6, lines 64-67 state that “[t]he device that requested the read can periodically poll the busy bit to determine when the requested data is available in registers SEEDAT0 and SEEDAT1.”

As to claims 1-3, see the comments above made with regard to claims 6-7.

5. Claims 1-6 and 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by *Pashley* (USPN: 6,418,506 B1).

Claimed	<i>Pashley</i>
4. A system for executing code using non-executable memory, comprising:	See figure 1.
i. An executing entity, for executing code;	See figure 1, the processor 104.
ii. A non-executable memory component, for storing said code and data; and.	See figure 1, the flash array 103.

Art Unit: 2187

iii. A plurality of executable memory components that operate as multiple memory buffers for preventing memory lockage for accesses to said data during download operations of said code.	See figure 1, the RAM Write Buffer array 101. The examiner notes that column 5, lines 10-14, state that “for one embodiment, data is read from the RAM array by an external device during at least a portion of time in which data is written to the flash array from [] the RAM array.”
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As to claim 5, the reference meets the limitation of the claim.

As to claims 1 and 3, see comments above.

As to claims 2, 6, and 8, see figure 4 and the comments above.

As to claim 9, the examiner notes that column 8, lines 59-64 state that ‘[f]or one embodiment of the present invention during at least a portion of the period of time in which the target is being read from the flash memory array of the RAM/flash IC memory device, a second amount of data is written to the RAM array of the memory device, from for example, another external device.’

Also, see column 10, lines 15-33.

6. Claims 1-3 and 6-7 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by *Rhee* (USPN: 5,608,673).

Art Unit: 2187

Conclusion

Any inquiry concerning this or an earlier communication from the Examiner should be directed to Yamir Encarnacion by phone at (703) 308-5466.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Do Yoo, can be reached on (703) 308-4908.

Any formal response to this action intended for entry should be mailed to Commissioner of Patents and Trademarks, Washington, D.C. 20231 or faxed to (703) 746-7239 and labeled "FORMAL" or "OFFICIAL." Any informal or draft communication should be faxed to (703) 746-7240 and labeled "INFORMAL" or "UNOFFICIAL" or "DRAFT" or "PROPOSED" and followed by a phone call to the Examiner at the above number. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

YEE

Yamir Encarnacion

Patent Examiner

September 23, 2002

Do Hyun Yoo
DO HYUN YOO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100